Telework and Emergency Management: A New Understanding of Handling Business Interruption
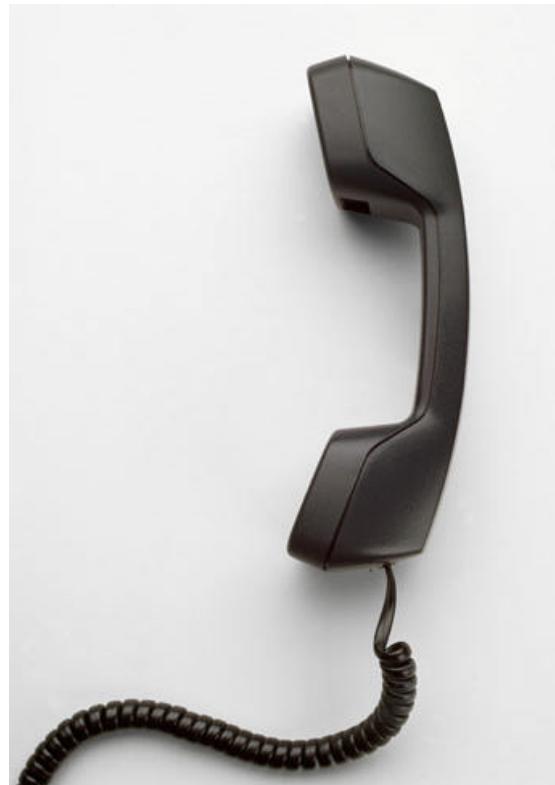
Detailed Data Supplement

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Interviews

I asked three of my interview participants, Jack Nilles, Patricia Mokhtarian and Rick Tobin, specific questions about the pilot project of the State of California and what should be done today regarding telework and emergency management.

Jack Nilles thinks the strengths of the pilot project were the fact that it was sufficiently large to get statistical significance out of the results and the fact that it ran long enough to dispel Hawthorne effect arguments. Another positive aspect was that it included a wide variety of people from almost 20 different agencies.
A weakness was that not very many clerical level workers were involved, most participants were managers or professionals. The pilot project also did not include any telework centers, which is another disadvantage. Jack would have liked to have follow-ups to the pilot project on a three year basis. Unfortunately, no roll-out plan regarding what happens after the pilot project was implemented. "The biggest problem with many of these projects is just that the demonstration works fine but the follow up just phh."
Since the pilot project ended, the number of teleworkers has risen, but has not increased as much as it should have according to Jack. One of the reasons for this is the fact that telework does not have the high-level backing it requires.
To the question what specifically needs to be done, Jack answered that the governor needs to say, let's do it. It has been demonstrated that telework can happen successfully, what is needed are incentives, such as a (moral or financial) reward system, to make it happen.
As a specific idea, Jack suggests a State Telework Week with a prize for the agency that has the highest proportion of its staff telecommuting that week. He calls for something visible that gets PR, an annual prize with a built in effect on the compensation of mid-level and senior managers.

Patricia Mokhtarian thinks that systematic data should be collected about teleworking among government employees. This would not only be an advantage from the academic point of view but would also reveal to employers the dynamics of teleworking over time.
She thinks the way to go in California is to provide lots of support, PR, case studies and reduce the uncertainty of management. She points out that it should not be forced upon people who absolutely do not want to do it.
To the question what specifically needs to be done she answered: "Do it!

Rick Tobin suggests forming a consortium, a working agreement between groups that have a like interest in mind and a like mission. "We need businesses in the private sector to influence workers and business people and government people to set up a program for disaster operations for their workers using

telework as an option." He calls for a videotape or a television show on emergency management.

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Survey

General Information

The following California Government Agencies were selected:

1	Alcohol and Drug Programs, Department of
2	Business, Transportation and Housing Agency
3	Community Services and Development, Department of
4	Conservation Corps, California
5	Consumer Affairs, Department of
6	Corrections, Department of
7	Developmental Services, Department of
8	Educational Facilities Authority, California
9	Emergency Services, Office of
10	Employment Development Department
11	Energy Resources, Conservation and Development Commission
12	Environmental Health Hazard Assessment, Office of
13	Equalization, Board of
14	Fish and Game, Department of
15	Food and Agriculture, Department of
16	Franchise Tax Board
17	General Services, Department of; Real Estate Division
18	Health and Welfare Agency Data Center
19	Industrial Relations, Department of
20	Information Technology, Department of
21	Justice, Department of; Attorney General Legal Division
22	Library, California State
23	Military Department
24	Motor Vehicles, Department of
25	Native American Heritage Commission
26	Peace Officer Standards and Training
27	Public Defender, State
28	Public Employees Retirement System
29	Public Utilities Commission
30	Seismic Safety Commission
31	Social Services, Department of
32	State Controller
33	Trade and Commerce Agency, California
34	Transportation, Department of
35	Toxic Substances Control, Department of
36	Veterans Affairs, Department of

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37	Water Resources Control Board, State
38	Youth Authority, Department of the
39	Youthful Offender Parole Board

Sample

Group	Description	# of selected agencies	%
A	999 and fewer employees / without telework involvement	8	20.513
B	1000 and more employees / without telework involvement	9	23.077
		17	*43.590*
C	999 and fewer employees / with telework involvement	11	28.205
D	1000 and more employees / with telework involvement	11	28.205
		22	*56.410*
		39	**100**

Returned questionnaires

Group	Description	# of sent questionnaires	# of returned questionnaires	%
A	999 and fewer employees / without telework involvement	8	5	24
B	1000 and more employees / without telework involvement	9	3	14
C	999 and fewer employees / with telework involvement	11	7	33
D	1000 and more employees / with telework involvement	11	6	29
		39	**21**	**100**

Twenty-one questionnaires were returned by January 18, 2000. That is a return rate of 54%.

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Question 1

How many employees of your agency are teleworking in a formal written telework agreement?

N=21

Answer	# of Answers	%
0	10	47.6
3	1	4.76
7	1	4.76
15	1	4.76
18	1	4.76
20	1	4.76
21	1	4.76
22	1	4.76
37	1	4.76
About 50	1	4.76
568	1	4.76
Unknown	1	4.76
	21	~100

Question 2

What is the average number of days per week the teleworking employees in your agency telework?

This question applies only to those that did not answer "0" in Question 1.
I specifically include in this question the respondent that answered "unknown" in Question 1. In Question 3 this respondent gives a date for the introduction of the formal telework option, so it can be concluded that this agency does have formal teleworkers, the respondent just does not know how many. That is the answer "no answer".

N=11

Answer	# of Answers	%
1 day	4	36.36
2 days	4	36.36
3 days	1	9.09
4 days	1	9.09
No answer	1	9.09
	11	~100

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Question 3

When was the formal telework options introduced (year, month)?

This question applies only to those that did not answer "0" in Question 1.

N=11

Answer	# of Answers	%
07/87	1	9.09
01/88	1	9.09
02/88	1	9.09
05/90	1	9.09
09/93	1	9.09
10/94	1	9.09
05/95	1	9.09
10/12/95	1	9.09
11/96	1	9.09
02/98	1	9.09
01/03/98	1	9.09
	11	~100

Question 4

How many employees were teleworking at the start of the formal telework program?

This question applies only to those that did not answer "0" in Question 1.

N=11

Answer	# of Answers	%
0	2	18.18
6	1	9.09
11	1	9.09
12	1	9.09
15	1	9.09
17	1	9.09
20	1	9.09
35	1	9.09
Unknown	2	18.18
	11	~100

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Two respondents answered "0". I believe they misunderstood the question. Naturally, before a formal telework program is conceived, there are no ("0") teleworkers in an agency. What the question was aiming at, though, was with how many teleworkers the formal telework program was launched (as opposed to how many teleworkers do they have today).

Question 5

How many employees of your agency are teleworking on an informal basis, without a formal written agreement?

N=21

Answer	# of Answers	%
0	7	33.32
1	1	4.76
3	1	4.76
4	1	4.76
5	1	4.76
10	1	4.76
15	1	4.76
15-20	1	4.76
30	1	4.76
94	1	4.76
100	1	4.76
hundreds	1	4.76
Unknown	3	14.28
	21	~100

The respondent that answered "30", added the following text: "NOTE: Our "emergency support" mission requires us to be in constant contact by e-mail. In addition, most managers and office heads conduct work via connection to our file servers in both Intranet and Internet environments. It is "additional" work requirements and is not formalized in the sense of Teleworking procedures."

Group	Formal teleworkers		Informal teleworkers	
	yes	no	yes	no
A	1	4	2	3
B	2	1	2	1
C	4	3	6	1
D	4	2	2[1]	2

Question 6

What is the <u>average number of days per week</u> the teleworking employees in your agency telework?

This question applies only to those that did not answer "0" in Question 5.
Of the three respondents who answered "unknown" in Question 5, I include only one in the answers to this question and the following two, Question 7 and 8. The reason for this is, that two of those that answered "unknown" did not answer Question 6 through 9. The third one (the same that answered "unknown" for Question 1), did not answer to Question 6, but did answer to Question 7 through 9. It can be concluded that there are informal teleworkers in that agency but the respondent does not know exact numbers.

N=12

Answer	# of Answers	%
1 day	4	33.32
2 days	2	16.66
3 days	3	24.99
No answer	1	8.33
1 day per month	1	8.33
0.5 - 1 day	1	8.33
	12	~100

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[1] Two respondents from group D answered the question asking for the number of informal teleworkers with "unknown" and "unable to determine".

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Question 7

When did teleworking on an informal basis start (month, year)?

N=12

Answer	# of Answers	%
07/86	1	8.33
05/88	1	8.33
1991	1	8.33
10/93	1	8.33
11/96	1	8.33
01/03/98	1	8.33
06/98	1	8.33
08/98	1	8.33
Many years ago	1	8.33
Unknown	3	24.99
	12	~100

Question 8

How many employees were teleworking at the start of the informal teleworking?

N=12

Answer	# of Answers	%
1	1	8.33
2	1	8.33
5	2	16.66
8	1	8.33
15	1	8.33
79	1	8.33
Not applicable	1	8.33
Unknown	4	33.32
	12	~100

One respondent answered "not applicable". I believe they misunderstood the question (the same problem as with Question 4). This respondent indicated in Question 5 that there are informal teleworkers in this agency.

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Question 9

What are the reasons for the informally teleworking employees not to be teleworking with a formal telework agreement?

More than one answer was possible.

N=12

Answer	# of Answers
No necessity to formalize it	4
Do not want to formalize it	2
Do not know how to formalize it	1
Other (Please explain)	5
No answer	2

Other reasons respondents indicated were:
- "easier process when a teleworker is only teleworking on a project-specific basis"
- "is done on a case by case special circumstances and is infrequently used"
- "Generally, it is on a project basis. Increased productivity."
- "It was decided at the XX[2] that teleworking guidelines would be drawn up **per** Division/Branch. These guidelines would then apply to everyone within that Division/Branch with the determination of formal vs. informal agreements being left tot he discretion of each individual supervisor. Currently, at XX[3] there is only 1 supervisor who requires a formal written agreement." (bold in original)
- "We are evolving away from informal teleworking, but still find it occasionally

- "The telework program was just implemented at XX[4]. Informal teleworkers have not had the opportunity to complete a formal agreement due to Y2K issues."
- "XX[5] telecommute program is a formal agreement between the employee, supervisor and Division Chief."
- "Occasional or irregularly-scheduled on an as needed basis."

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[2] To preserve anonymity, the name of the agency is not being given.
[3] op.cit.
[4] op.cit.
[5] op.cit

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Question 10

What are the main reasons for teleworking in your agency?
(Please rank in order of importance with "1" being the most important, "2"
the second most important, etc.)
> *Space savings*
> *Improved recruitment/retention*
> *Productivity increases*
> *Improved customer service*
> *Greater flexibility for employees*
> *Risk management*
> *Other (Please explain)*

15 respondents answered with a ranking as directed. Out of those, one respondent rated all seven answers, the others left some out. Only the rating '1' (most important) and '2' (second most important) were given by all 15 respondents. 5 respondents did not answer with a ranking but checked some items off. 1 respondent did not answer at all.

N=21

'Most important'/'1'		
Answer	*# of Answers*	*%*
Not valid	6	28.56
Space savings	2	9.52
Improved recruitment/retention	0	0
Productivity increases	3	14.28
Improved customer service	0	0
Greater flexibility for employees	9	42.84
Risk management	0	0
Other (Please explain)	1	4.76
	21	~100

Other reasons respondents indicated were:
- "Executive Order by Governor and DPA[6] requirement"

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[6] DPA = Department of Personnel Administration

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N=21

'Second most important'/'2'		
Answer	*# of Answers*	*%*
Not valid	6	28.56
Space savings	1	4.76
Improved recruitment/retention	4	19.04
Productivity increases	4	19.04
Improved customer service	0	0
Greater flexibility for employees	5	23.8
Risk management	1	4.76
Other (Please explain)	1	4.76
	21	~100

Other reasons respondents indicated were:
- "Parking Considerations/Traffic"

Because not all respondents answered with a ranking '3' through '7' these answers are not taken into account. They do not reveal clear results.
Other reasons respondents indicated were:
- "to help alleviate traffic congestion in the San Francisco Bay Area" (rank 3)
- "Improve air quality and reduce traffic congestion" (rank 5)
- "Accommodation of medical restrictions were employees can perform some or all work functions while adhering to recommendation of physician." (no rank, but check mark)
- "Air quality compliance effort" (nothing checked, just added)
- "The XX[7] telecommute program is offered to reduce commute congestion and improve productivity." (no rank, but check mark)
- "no employees current telework" (nothing checked, just added)
- "Air quality issues" (rank 2)

Question 11

What are the main reasons that discourage teleworking in your agency?
(Please rank in order of importance with "1" being the most important, "2" the second most important, etc.)
> *Never thought about it*
> *Do not agree with the concept of telework*
> *None of the tasks within the jobs are location-independent*
> *Minority of the tasks within the jobs are location-independent*
> *Do not know how to start it*
> *Other (Please explain)*

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[7] To preserve anonymity, the name of the agency is not being given.

Because not all respondents answered with a ranking from '2' through '6', these answers are not taken into account, as they do not reveal clear results.

Other reasons respondents indicated themselves were:

- "When staff is not "immediately" available, inter-divisional/branch cooperation on projects is often hampered. Also, with the increasing number of vacancies that cannot be filled, there is an increased workload (backlog) that requires quick turnaround. Additionally, within at least one division, management indicated that there was a demonstrable decline in work product." (rank 4)
- "Discourage is not quite the picture, formalized teleworking has not been seen as an alternative to our work environment; however, our Department is beginning to expand its work horizons and plan to present a Teleworking plan for adoption within the Department in the new year." (check mark)
- "We are still evaluating telework's benefit to XX[8] & our constituents." (check mark)
- "We had trouble with the Union CSEA who blocked our implementation plans." (no mark, just added)

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[8] op.cit.

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- "Does not apply. XX[9] does not discourage teleworking. It had not been made available to employees until now." (no mark, just added)
- "Security requirements for confidential files and costs to implement them." (no mark, just added)
- "Fearful that employees would not be accessible, abuse of time, + physically would not be able to share information when physically separated." (no mark, just added)

Question 12

Does your agency have a <u>Business Resumption Plan</u> (BRP)?

N=21

Answer	# of Answers	%
Yes	17	80.92
No	3	14.28
No answer	1	4.76
	21	~100

Question 13

<u>If yes</u>, is telework included in your BRP?

This question applies only to those who answered "yes" in question 12.

N=17

Answer	# of Answers	%
Yes	9	52.92
No	8	47.04
	17	~100

Question 14

Does your agency have a <u>Continuity Planning for Business</u> (CPB)?

N=21

Answer	# of Answers	%
Yes	19	90.44
No	0	0
No answer	2	9.52
	21	~100

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[9] op.cit.

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Question 15

If yes, is telework included in your CPB?

This question applies only to those who answered "yes" in question 14.

N=19

Answer	# of Answers	%
Yes	10	52,632
No	9	47,368
	19	~100

Question 16

Does your agency have an Operational Recovery Plan (ORP)?

N=21

Answer	# of Answers	%
Yes	18	85.68
No	1	4.76
No answer	2	9.52
	21	~100

Question 17

If yes, is telework included in your ORP?

This question applies only to those who answered "yes" in question 16.

N=18

Answer	# of Answers	%
Yes	10	55.5
No	7	38.85
	18	~100

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Question 18

Did any event, emergency or disaster in the past 10 years
- *make your building unusable, and/or*
- *prevent or disable employees from reaching their regular work site and/or*
- *impair in any other way physical access to and/or usage of the regular work site?*

N=21

Answer	# of Answers	%
Yes	5	23.8
No	13	61.88
No answer	3	14.28
	21	~100

5 respondents answered "yes" to this question and therefore the Questions 19 through 27 also applied to them.
As the answers vary greatly, I am presenting them in a text format for each questionnaire.

The first agency experienced two fires in its building, which caused air quality problems in July and December 1998. The recovery process took a minimal number of days. The damage to supplies in the building was significant. Access into building lobby was limited. Approximately 20 employees of this agency were teleworking formally before these events occurred. Approximately 10 employees were teleworking informally immediately after and/or in recovery of these events. This teleworking arrangement was terminated after the recovery process was completed.

The second agency experienced a fire alarm threat, a bomb threat and an electrical outage in December 1998. The recovery process took a few hours. No damage was experienced, apart from a few unproductive hours. Employees of this agency were teleworking (none formally and one informally) before this event occurred.
The questions about the number of employees teleworking immediately after/and or in recovery of the emergency and if this teleworking arrangement was continued, expanded or terminated after the recovery process was completed were not answered.

The third agency experienced a water pipe burst, small fire and possible asbestos spill at various points in time during the past ten years. The recovery process was an unspecified number of days (as opposed to months or years). The damage this agency experienced was water and equipment damage. Some

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employees had to relocate to a different site. Employees of this agency were teleworking (three formally and 90 informally) before these events occurred. The same amount of employees was teleworking immediately after and/or in recovery of the events. This telework arrangement has been continued and expanded after the recovery process was completed.

Flooding prevented a few employees of the fourth agency from reaching their regular work site at an unknown time in 1997. It took two days for the streets to be cleared. No damage to the agency was experienced. No employees were teleworking formally or informally before the event affected the agency. A small number[10] of employees were teleworking informally immediately after/and or in recovery of the emergency. After the recovery process was completed, this arrangement was terminated.

The fifth agency experienced the Loma Prieta earthquake on October 17, 1989. The recovery process took three business days, staff returned to work on October 23, 1989. "Our site experienced power outages, damage to our computer systems and building structural safety was questionable. Employees could not return to work until the building had passed a structural inspection. Additionally, there was damage to the San Francisco Bay Bridge which impacted the commute from the East Bay region to San Francisco." Employees of this agency were teleworking before the event occurred, but exact data is not available. No employees were teleworking immediately after and/or in recovery of the emergency.

Questions 28, 29 and 30

What is your name and your e-mail address? What is the name and address of your agency? What is your present title and position?

These questions were asked for record keeping and questionnaire tracking. The answers are not relevant to the research and are not included to ensure anonymity.

Question 31

Do you have any comments you would like to share? (Please feel free to use extra paper, if necessary.)

- "We are still experimenting with telework. There is still a lingering concern that management may not be able to rescind telework in cases in which it does not prove viable."

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[10] Exact words: "minimal (a handful); exact number unknown".

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- "XX[11] is currently in the process of developing and establishing a formal telework policy & program."
- "Telework is embraced by some and is starting to be considered more frequently."
- "There are no civil service employees on Telework/Telecommuting. Not allowed. One appointed/exempt employee informally uses telework."
- "Telecommuting has been an unmitigated success at this department. While it is not without problems, they have not been any greater than those presented by on-site supervision, and it has allowed us to reap the many acknowledged benefits, from increased productivity to employee recruitment and retention. I heartily recommend the program."
- "The telework program in our Department has met with varying degrees of success. While management is supportive of the program, they have not been overly strong in requiring middle management to comply with the program. This has caused low morale Departmentwide, as some employees are allowed to participate and others are not for no other reason other than the lack of willingness of change and try a fresh approach to doing business."
- "The XX[12] has a telecommute program, that is incorporated into our Administrative Procedures Manual. Telecommuting is formalized between the employee, their supervisor and Division Chief and was implemented to reduce commute congestion and improve employee productivity. The formal agreements are not centralized, we do not have information regarding the number of days or employees who participate in the program."
- "[...] Not all areas are completed in the survey due to XX[13] not having a formal Telework policy nor a means of tracking the informal practices of telework. [...][14]"

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[11] To preserve anonymity, the name of the agency is not being given.
[12] op.cit.
[13] op.cit
[14] The square brackets indicate that the respondent gave administrational information about returning the survey. It is not relevant for the research and is therefore not indicated here.

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